

15



PCT09

RAW SEQUENCE LISTING

DATE: 01/23/2002

PATENT APPLICATION: US/09/830,980

TIME: 17:42:46

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

PS

ENTERED

3 <110> APPLICANT: COHEN, STEPHEN
 4 BOUWMEESTER, ANTONIUS
 5 ROYET, JULIEN
 7 <120> TITLE OF INVENTION: REGULATOR OF NOTCH SIGNALING ACTIVITY
 9 <130> FILE REFERENCE: 55880(71745)
 11 <140> CURRENT APPLICATION NUMBER: 09/830,980
 12 <141> CURRENT FILING DATE: 2001-05-02
 14 <150> PRIOR APPLICATION NUMBER: PCT/IB99/01891
 15 <151> PRIOR FILING DATE: 1999-11-03
 17 <150> PRIOR APPLICATION NUMBER: GB 9824045.0
 18 <151> PRIOR FILING DATE: 1998-11-03
 20 <160> NUMBER OF SEQ ID NOS: 16
 22 <170> SOFTWARE: PatentIn Ver. 2.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 480
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Drosophila sp.
 29 <400> SEQUENCE: 1
 30 Met Gln Glu Thr Asp Thr Glu Gln Glu Ala Thr Pro His Thr Ile Gln
 31 1 5 10 15
 33 Ala Arg Leu Val Tyr Thr Gly Glu Glu Ala Gly Pro Pro Ile Asp Leu
 34 20 25 30
 36 Pro Ala Gly Ile Thr Thr Gln Gln Leu Gly Leu Ile Cys Asn Ala Leu
 37 35 40 45
 39 Leu Lys Asn Glu Glu Ala Thr Pro Tyr Leu Phe Phe Val Gly Glu Asp
 40 50 55 60
 42 Glu Ile Lys Lys Ser Leu Glu Asp Thr Leu Asp Leu Ala Ser Val Asp
 43 65 70 75 80
 45 Thr Glu Asn Val Ile Asp Ile Val Tyr Gln Pro Gln Ala Val Phe Lys
 46 85 90 95
 48 Val Arg Pro Val Thr Arg Cys Thr Ser Ser Met Pro Gly His Ala Glu
 49 100 105 110
 51 Ala Val Val Ser Leu Asn Phe Ser Pro Asp Gly Ala His Leu Ala Ser
 52 115 120 125
 54 Gly Ser Gly Asp Thr Thr Val Arg Leu Trp Asp Leu Asn Thr Glu Thr
 55 130 135 140
 57 Pro His Phe Thr Cys Thr Gly His Lys Gln Trp Val Leu Cys Val Ser
 58 145 150 155 160
 60 Trp Ala Pro Asp Gly Lys Arg Leu Ala Ser Gly Cys Lys Ala Gly Ser
 61 165 170 175
 63 Ile Ile Ile Trp Asp Pro Glu Thr Gly Gln Gln Lys Gly Arg Pro Leu
 64 180 185 190
 66 Ser Gly His Lys Lys His Ile Asn Cys Leu Ala Trp Glu Pro Tyr His

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,980

DATE: 01/23/2002

TIME: 17:42:46

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

```

67          195          200          205
69 Arg Asp Pro Glu Cys Arg Lys Leu Ala Ser Ala Ser Gly Asp Gly Asp
70      210          215          220
72 Cys Arg Ile Trp Asp Val Lys Leu Gly Gln Cys Leu Met Asn Ile Ala
73 225          230          235          240
75 Gly His Thr Asn Ala Val Thr Ala Val Arg Trp Gly Gly Ala Gly Leu
76      245          250          255
78 Ile Tyr Thr Ser Ser Lys Asp Arg Thr Val Lys Met Trp Arg Ala Ala
79      260          265          270
81 Asp Gly Ile Leu Cys Arg Thr Phe Ser Gly His Ala His Trp Val Asn
82      275          280          285
84 Asn Ile Ala Leu Ser Thr Asp Tyr Val Leu Arg Thr Gly Pro Phe His
85      290          295          300
87 Pro Val Lys Asp Arg Ser Lys Ser His Leu Ser Leu Ser Thr Glu Glu
88 305          310          315          320
90 Leu Gln Glu Ser Ala Leu Lys Arg Tyr Gln Ala Val Cys Pro Asp Glu
91      325          330          335
93 Val Glu Ser Leu Val Ser Cys Ser Asp Asp Asn Thr Leu Tyr Leu Trp
94      340          345          350
96 Arg Asn Asn Gln Asn Lys Cys Val Glu Arg Met Thr Gly His Gln Asn
97      355          360          365
99 Val Val Asn Asp Val Lys Tyr Ser Pro Asp Val Lys Leu Ile Ala Ser
100      370          375          380
102 Ala Ser Phe Asp Lys Ser Val Arg Leu Trp Arg Ala Ser Asp Gly Gln
103 385          390          395          400
105 Tyr Met Ala Thr Phe Arg Gly His Val Gln Ala Val Tyr Thr Val Ala
106      405          410          415
108 Trp Ser Ala Asp Ser Arg Leu Ile Val Ser Gly Ser Lys Asp Ser Thr
109      420          425          430
111 Leu Lys Val Trp Ser Val Gln Thr Lys Lys Leu Ala Gln Glu Leu Pro
112      435          440          445
114 Gly His Ala Asp Glu Val Phe Gly Val Asp Trp Ala Pro Asp Gly Ser
115      450          455          460
117 Arg Val Ala Ser Gly Gly Lys Asp Lys Val Ile Lys Leu Trp Ala Tyr
118 465          470          475          480

```

122 <210> SEQ ID NO: 2

123 <211> LENGTH: 1555

124 <212> TYPE: DNA

125 <213> ORGANISM: Drosophila sp.

127 <400> SEQUENCE: 2

```

128 aattcccaaa aaatgcagga gacggacacg gagcaagagg ccacgccaca tacgatacag 60
129 gcgcgcctcg ttacacggg cgaggaagcc ggcccgccaa tcgacctgcc ggcaggaatc 120
130 actaccagc aattgggact gatttgcaac gcgctgctga aaaacgagga agccactcca 180
131 tatttgtttt tcgtgggcca ggatgagatc aagaagagcc tggaggacac gttggacttg 240
132 gcgtcagtgg acaccgaaaa cgtgatcgat attgtgtatc agccacaggc ggttttcaaa 300
133 gtgcgcccag tgacaagatg cacgagttcc atgccgggac acgccgaggc tgtggtttcg 360
134 ctgaatttca gcccgatgg tgctcatctc gccagtggaa gtggcgacac cacagtgcga 420
135 ttgtgggata ttaacacaga gacaccgcac ttcactgca caggtcataa gcagtgggtt 480
136 ctgtgcgtat cctgggctcc ggatggcaaa cggttgcca gcggttgcaa agcgggctct 540

```

RAW SEQUENCE LISTING

DATE: 01/23/2002

PATENT APPLICATION: US/09/830,980

TIME: 17:42:46

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

```

137 ataatcatct gggacccgga gacgggtcag cagaaggggc gacccttgag tgggcacaag 600
138 aaacacatca actgcctcgc ctgggaaccg tatcatcgcg atccggagtg caggaaactt 660
139 gcttccgcca gtggagacgg ggactgccgg atttgggacg taaaattggg ccagtgcctt 720
140 atgaacattg ccggacacac aaatgctgtg acagcagtga gatggggtgg agcgggcctt 780
141 atttatacat cctccaaaga tcgcacagtg aagatgtggc gagcagctga tggaatcttg 840
142 tgccggacgt tctctggcca agctcactgg gtaaacaca ttgcgctgag caccgattac 900
143 gtccctgcga ctggtccatt ccattccggtg aaggatcgct ccaagagcca cctcagtttg 960
144 agcactgagg aattgcagga atctgccttg aagcgctacc aggccgtgtg ccctgacgag 1020
145 gtggagtgcg tggtttcctg ttccgatgac aacaccctct atctgtggcg gaacaaccag 1080
146 aacaagtgcg ttgagcgcg gacagggcac cagaacgtgg tcaacgatgt gaaatattcg 1140
147 ccggatgtaa agctaattgc gtctgcttca ttgacaagt cagtgcgtct gtggcgagcc 1200
148 agcgatggtc agtacatggc caccctccgg ggtcatgtgc aggtgttga caccggttgc 1260
149 tggctccggg actcccgctt gattgtttcc ggcagcaaag actcaactct aaaagtattg 1320
150 agtgtgcaga cgaagaaact ggcacaggag ctgcctggac atgcggatga ggtgttcgga 1380
151 gtggactggg cgccgatgg ctctagagtt gcctctggtg gcaaggacaa agttataaag 1440
152 ctatgggctt attaacaat cattaacttg tacacggtaa gaaaatactt aggaataaag 1500
153 taaaacgtcc tgagtaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1555
156 <210> SEQ ID NO: 3
157 <211> LENGTH: 513
158 <212> TYPE: PRT
159 <213> ORGANISM: Saccharomyces cerevisiae
161 <400> SEQUENCE: 3
162 Met Ser Thr Leu Ile Pro Pro Pro Ser Lys Lys Gln Lys Lys Glu Ala
163 1 5 10 15
165 Gln Leu Pro Arg Glu Val Ala Ile Ile Pro Lys Asp Leu Pro Asn Val
166 20 25 30
168 Ser Ile Lys Phe Gln Ala Leu Asp Thr Gly Asp Asn Val Gly Gly Ala
169 35 40 45
171 Leu Arg Val Pro Gly Ala Ile Ser Glu Lys Gln Leu Glu Glu Leu Leu
172 50 55 60
174 Asn Gln Leu Asn Gly Thr Ser Asp Asp Pro Val Pro Tyr Thr Phe Ser
175 65 70 75 80
177 Cys Thr Ile Gln Gly Lys Lys Ala Ser Asp Pro Val Lys Thr Ile Asp
178 85 90 95
180 Ile Thr Asp Asn Leu Tyr Ser Ser Leu Ile Lys Pro Gly Tyr Asn Ser
181 100 105 110
183 Thr Glu Asp Gln Ile Thr Leu Leu Tyr Thr Pro Arg Ala Val Phe Lys
184 115 120 125
186 Val Lys Pro Val Thr Arg Ser Ser Ala Ile Ala Gly His Gly Ser
187 130 135 140
189 Thr Ile Leu Cys Ser Ala Phe Ala Pro His Thr Ser Ser Arg Met Val
190 145 150 155 160
192 Thr Gly Ala Gly Asp Asn Thr Ala Arg Ile Trp Asp Cys Asp Thr Gln
193 165 170 175
195 Thr Pro Met His Thr Leu Lys Gly His Tyr Asn Trp Val Leu Cys Val
196 180 185 190
198 Ser Trp Ser Pro Asp Gly Glu Val Ile Ala Thr Gly Ser Met Asp Asn
199 195 200 205
201 Thr Ile Arg Leu Trp Asp Pro Lys Ser Gly Gln Cys Leu Gly Asp Ala

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,980

DATE: 01/23/2002

TIME: 17:42:46

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

```

202      210      215      220
204 Leu Arg Gly His Ser Lys Trp Ile Thr Ser Leu Ser Trp Glu Pro Ile
205 225      230      235      240
207 Leu Val Lys Pro Gly Ser Lys Pro Arg Leu Ala Ser Ser Ser Lys Asp
208      245      250      255
210 Gly Thr Ile Lys Ile Trp Asp Thr Val Ser Arg Val Cys Gln Tyr Thr
211      260      265      270
213 Met Ser Gly His Thr Asn Ser Val Ser Cys Val Lys Trp Gly Gly Gln
214      275      280      285
216 Gly Leu Leu Tyr Ser Gly Ser His Asp Arg Thr Val Arg Val Trp Asp
217      290      295      300
219 Ile Asn Ser Gln Gly Arg Cys Ile Asn Ile Leu Lys Ser His Ala His
220 305      310      315      320
222 Trp Val Asn His Leu Ser Leu Ser Thr Asp Tyr Ala Leu Arg Ile Gly
223      325      330      335
225 Ala Phe Asp His Thr Gly Lys Lys Pro Ser Thr Pro Glu Glu Ala Gln
226      340      345      350
228 Lys Lys Ala Leu Glu Asn Tyr Glu Lys Ile Cys Lys Lys Asn Gly Asn
229      355      360      365
231 Ser Glu Glu Met Met Val Thr Ala Ser Asp Asp Tyr Thr Met Phe Leu
232      370      375      380
234 Trp Asn Pro Leu Lys Ser Thr Lys Pro Ile Ala Arg Met Thr Gly His
235 385      390      395      400
237 Gln Lys Leu Val Asn His Val Ala Phe Ser Pro Asp Gly Arg Tyr Ile
238      405      410      415
240 Val Ser Ala Ser Phe Asp Asn Ser Ile Lys Leu Trp Asp Gly Arg Asp
241      420      425      430
243 Gly Lys Phe Ile Ser Thr Phe Arg Gly His Ile Ala Ser Val Tyr Gln
244      435      440      445
246 Val Ala Trp Ser Ser Asp Cys Arg Leu Leu Val Ser Cys Ser Lys Asp
247      450      455      460
249 Thr Thr Leu Lys Val Trp Asp Val Arg Thr Arg Lys Leu Ser Val Asp
250 465      470      475      480
252 Leu Pro Gly Ile Lys Thr Lys Leu Tyr Val Asp Trp Ser Val Asp Gly
253      485      490      495
255 Lys Arg Val Cys Ser Gly Gly Lys Asp Lys Met Val Arg Leu Trp Thr
256      500      505      510
258 His
262 <210> SEQ ID NO: 4
263 <211> LENGTH: 351
264 <212> TYPE: PRT
265 <213> ORGANISM: Codonantho elegans
267 <220> FEATURE:
268 <221> NAME/KEY: MOD_RES
269 <222> LOCATION: (184)..(185)
270 <223> OTHER INFORMATION: Variable amino acid
272 <400> SEQUENCE: 4
273 Pro Gln Ile Ser Val Ser Glu Asp Glu Asn Glu Leu Gly Gly Ser Gly
274 1 5 10 15

```

RAW SEQUENCE LISTING

DATE: 01/23/2002

PATENT APPLICATION: US/09/830,980

TIME: 17:42:46

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

276 Ile Leu Val Pro Val Asp Ile Ser Thr Asn Glu Leu Gln Ile Leu Cys
 277 20 25 30
 279 Asn Gln Leu Leu Gly Ser Arg Phe Cys Leu Asn Asn Glu Phe Ser Val
 280 35 40 45
 282 Ser Gly Ala Glu Ile Val Asp Ser Ile Arg Lys Ser Leu Glu Glu Ile
 283 50 55 60
 285 Asp Phe Glu Thr Leu Lys Leu Val Tyr Gln Pro Gln Ala Val Phe Arg
 286 65 70 75 80
 288 Val Arg Pro Val Thr Arg Cys Ser Ala Ser Ile Pro Gly His Gly Glu
 289 85 90 95
 291 Pro Val Ile Ser Ala Gln Phe Ser Pro Asp Gly Arg Gly Leu Ala Ser
 292 100 105 110
 294 Gly Ser Gly Asp Gln Thr Met Arg Ile Trp Asp Ile Glu Leu Glu Leu
 295 115 120 125
 297 Pro Leu His Thr Cys Lys Ser His Lys Ser Trp Val Leu Cys Ile Ala
 298 130 135 140
 300 Trp Ser Pro Asp Ala Thr Lys Ile Ala Ser Ala Cys Lys Asn Gly Glu
 301 145 150 155 160
 303 Ile Cys Ile Trp Asn Ala Lys Thr Gly Glu Gln Ile Gly Lys Thr Leu
 304 165 170 175
 306 Lys Arg His Lys Gln Trp Ile Xaa Xaa Leu Ala Trp Gln Pro Thr Val
 307 180 185 190
 309 Lys Met Trp Arg Ala Asp Asp Gly Val Met Cys Arg Asn Met Thr Gly
 310 195 200 205
 312 His Ala His Trp Ile Asn Thr Leu Ala Leu Asn Thr Asp Tyr Ala Leu
 313 210 215 220
 315 Arg Thr Ser Cys Phe Glu Pro Ser Lys Ile Asn Arg Met Thr Gly His
 316 225 230 235 240
 318 Met Gln Leu Val Asn Gln Val Val Phe Ser Pro Asp Thr Arg Tyr Ala
 319 245 250 255
 321 Ser Ala Ser Phe Asp Lys Ser Val Lys Leu Trp Cys Gly Arg Thr Gly
 322 260 265 270
 324 Lys Tyr Leu Ala Ser Phe Arg Gly His Val Gly Pro Val Tyr Gln Val
 325 275 280 285
 327 Ala Trp Ser Ala Asp Ser Arg Leu Leu Val Ser Gly Ser Ala Asp Ser
 328 290 295 300
 330 Thr Leu Lys Val Phe Glu Leu Lys Thr Lys Ser Leu Tyr Tyr Asp Leu
 331 305 310 315 320
 333 Pro Gly His Gly Asp Glu Val Phe Thr Val Asp Trp Ser Pro Glu Gly
 334 325 330 335
 336 Thr Lys Val Val Ser Gly Gly Lys Asp Lys Val Leu Lys Leu Trp
 337 340 345 350
 340 <210> SEQ ID NO: 5
 341 <211> LENGTH: 103
 342 <212> TYPE: PRT
 343 <213> ORGANISM: Mus sp.
 345 <220> FEATURE:
 346 <221> NAME/KEY: MOD_RES
 347 <222> LOCATION: (39)

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/830,980

DATE: 01/23/2002

TIME: 17:42:47

Input Set : A:\55871745.app

Output Set: N:\CRF3\01232002\I830980.raw

L:306 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12